

CLAIM AMENDMENTS

The following listing of the claims replaces all prior versions, and listings, of the claims in the application.

1. (Currently Amended) A stock shape for machining, which is composed of ~~an a~~ solidified extruded product produced by a process which comprises extruding and solidifying of a resin composition comprising 30 to 94 % by mass of a thermoplastic resin (A) having a melting point of at least 220°C or a glass transition temperature of at least 170°C, 5 to 40 % by mass of a carbon precursor (B) having a volume resistivity of 10^2 to $10^{10} \Omega \cdot \text{cm}$ and a carbon content of 80 to 97% by mass, and 1 to 30 % by mass of a conductive filler (C) which is carbon fiber having a volume resistivity lower than $10^2 \Omega \cdot \text{cm}$ ~~and has a thickness or diameter not smaller than 4 mm~~ ,
wherein the stock shape for machining is a plate having a thickness of 4 to 70 mm or a round bar having a diameter of 4 to 70 mm and has a surface resistivity of 10^5 to $10^{13} \Omega/\square$, and
the solidified extruded product is produced by an extrusion and solidification method using an extrusion forming machine, to the tip of which an extrusion die and a forming die are coupled, and subjected to a heat treatment for at least 30 minutes at a temperature of from 150°C to a temperature capable of retaining the solidified state after the extrusion and solidification, thereby residual stress is removed,
and further wherein a length of burr observed is not longer than 30 μm , said length of burr being determined by a measuring method, in which a flat plate sample of the solidified extruded product, which has a thickness of 10 mm, is subjected to drilling under conditions that a drill having a drill diameter of 800 μm is used, the number of revolutions of the drill is 8,000

revolutions/min, and the feed speed of the drill is 200 mm/min, and the length of burr produced around a hole is evaluated with an electron microscope

~~wherein the process for producing the extruded product comprises:~~

~~a step of feeding the resin composition to an extrusion forming machine, to which a die assembly composed of an extrusion die (i) and a forming die (ii) equipped with a cooling device at an exterior thereof and a passage in communication with a passage of the extrusion die at an interior thereof is coupled;~~

~~a step of extruding the resin composition into a desired shape from the extrusion die (i) while melting the resin composition by the extrusion forming machine; and~~

~~a step of cooling an extruded product in a molten state extruded from the extrusion die (i) in the interior of the forming die (ii) to solidify the extruded product.~~

2. (Canceled).

3. (Currently Amended) The stock shape for machining according to claim 2 1, wherein the thermoplastic resin having a melting point of at least 220°C is at least one thermoplastic resin selected from the group consisting of polybutylene terephthalate, polyethylene terephthalate, nylon 6, nylon 66, nylon 46, poly(phenylene sulfide), poly(ether ether ketone), all-aromatic polyester, polymethylpentene, polycarbonate, polytetrafluoroethylene, tetrafluoroethylene/hexafluoropropylene/ perfluoroalkoxyvinyl ether terpolymers, tetrafluoro-ethylene/ethylene copolymers, polyvinyl fluoride, tetrafluoroethylene/hexafluoropropylene copolymers and tetrafluoroethylene/perfluoroalkyl vinyl ether copolymers.

4. (Currently Amended) The stock shape for machining according to claim 2 1, wherein the thermoplastic resin having a glass transition temperature of at least 170°C is at least one thermoplastic resin selected from the group consisting of poly(phenylene ether), polyarylates, polysulfone, poly(ether sulfone), poly(ether imide), polyamide-imide and thermoplastic polyimide.

5. (Original) The stock shape for machining according to claim 1, wherein the thermoplastic resin (A) is at least one thermoplastic resin selected from the group consisting of poly(ether ether ketone), poly(ether imide), poly(phenylene sulfide), polysulfone, poly(ether sulfone) and polycarbonate.

6. (Original) The stock shape for machining according to claim 1, wherein the thermoplastic resin (A) is a mixture of at least two thermoplastic resins.

7. (Original) The stock shape for machining according to claim 6, wherein the mixture of at least two thermoplastic resins is a mixture composed of a combination of poly(ether ether ketone)/poly(ether imide), poly(ether imide)/poly(phenylene sulfide), poly(ether ether ketone)/poly(phenylene sulfide) or poly(ether ether ketone)/poly(ether imide)/poly(phenylene sulfide).

8. (Previously Presented) The stock shape for machining according to claim 7, wherein the mixture of at least two thermoplastic resins is a mixture containing poly(ether ether ketone) and poly(ether imide) in proportions of 40:60 to 95:5 in terms of a mass ratio.

9. (Previously Presented) The stock shape for machining according to claim 7, wherein the mixture of at least two thermoplastic resins is a mixture containing poly(phenylene sulfide) and poly(ether imide) in proportions of 40:60 to 95:5 in terms of a mass ratio.
10. (Previously Presented) The stock shape for machining according to claim 7, wherein the mixture of at least two thermoplastic resins is a mixture containing poly(ether ether ketone) and poly(phenylene sulfide) in proportions of 40:60 to 95:5 in terms of a mass ratio.
11. (Previously Presented) The stock shape for machining according to claim 7, wherein the mixture of at least two thermoplastic resins is a mixture containing poly(ether ether ketone), poly(phenylene sulfide) and poly(ether imide) in proportions of 50:50 to 95:10 in terms of a mass ratio of the total mass of the poly(ether ether ketone) and poly(phenylene sulfide) to poly(ether imide).
- 12-13. (Canceled).
14. (Currently Amended) The stock shape for machining according to claim ~~13~~ 1, wherein the carbon fiber is polyacrylonitrile based carbon fiber, pitch based carbon fiber or a mixture thereof.
15. (Previously Presented) The stock shape for machining according to claim 1, wherein the resin composition comprises 60 to 85 % by mass of the thermoplastic resin (A), 12 to 25 % by mass of the carbon precursor (B) and 3 to 15 % by mass of the conductive filler (C).

16-18. (Canceled).

19. (Withdrawn) A process for producing a stock shape for machining, which comprises extruding and solidifying a resin composition comprising 30 to 94 % by mass of a thermoplastic resin (A), 5 to 40 % by mass of a carbon precursor (B) having a volume resistivity of 10^2 to 10^{10} $\Omega\cdot\text{cm}$ and 1 to 30 % by mass of a conductive filler (C) having a volume resistivity lower than 10^2 $\Omega\cdot\text{cm}$ through the following Steps 1 to 3:

(1) a step of feeding the resin composition to an extrusion forming machine, to which a die assembly composed of an extrusion die (i) and a forming die (ii) equipped with a cooling device at an exterior thereof and a passage in communication with a passage of the extrusion die at an interior thereof is coupled;

(2) a step of extruding the resin composition into a desired shape from the extrusion die (i) while melting the resin composition by the extrusion forming machine; and

(3) a step of cooling an extruded product in a molten state extruded from the extrusion die (i) in the interior of the forming die (ii) to solidify the extruded product, thereby obtaining an extruded product having a thickness or diameter exceeding 3 mm.

20. (Withdrawn) The production process according to claim 19, which comprises subjecting the solidified extruded product to a heat treatment for at least 30 minutes at a temperature of from 150°C to a temperature capable of retaining the solidified state after the extrusion and solidification.

21. (Canceled).